

Work Order ID 127548

December-17-14 1:37:25 PM

127548

Page 1

Item ID: D3874-1L08 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Floor Protector, Co-Pilot (Clear)
 Start Date: 12/12/14 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 12/17/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLS Date: 14-12-22 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3874	B								
100		0.00							DAS 07 9-89
100									
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	1-Cut Sheet to required Blank size								15/01/06.
105		0.00							DAS 07 9-89
105									
HandThermo	Dry Material	0.00							
Hand Finishing Thermoforming	Dry Sheet as per OSI022 POLYCARBONATE								15/01/06

Temp: 245 deg
 Time IN: 5:00 PM
 Time OUT: 6:00 AM

JAN 05 2015

Per...Sh....

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge		
☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other		

Work Order ID 127548

December-17-14 1:37:25 PM

127548

Page 2

Item ID: D3874-1L08

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Floor Protector, Co-Pilot (Clear)

Stop ***NS2***

Start Date: 12/12/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
110									
Thermoform									
Thermoforming Machine									
	Memo	0.00							
	1-Machine Set-Up								
	2-Pre-heat Tool to required temp.								
	3-Thermoform as per Dwg and Folio #FTA038 using tool DT9474								
	Dwg Rev: <u>B</u>								
	Folio Rev: <u>B</u>								
	Visually inspect for proper formation and texture								
140		0.00							
140									
HandThermo									
Hand Finishing Thermoforming									
	Memo	0.00							
	1-Trim to finished dimensions as per Dwg								
150		0.00							
	QC2- Inspect parts off machine FAI/FAIB								
150									
QC									
Quality Control									
	Memo	0.00							
	Complete FAI document								

XL _____ 15/01/06

XL _____ B 15/01/07

XL _____ DL 15/01/07

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
--	--	---	--

Work Order ID 127548

December-17-14 1:37:25 PM

127548

Page 3

Item ID: D3874-1L08

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Floor Protector, Co-Pilot (Clear)

Start Date: 12/12/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
160									
QC	Memo	0.00							DAS 449 9-89
Quality Control									15/01/07
170	Identify as per dwg & Stock Location: <u>ST 425</u>	0.00							
170									
Packaging	Memo	0.00							CR 15-01-08
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							MUJ 15-01-09
Quality Control									

(Signature) 15-1-9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
--	--	---	--

Picklist Print

December-17-14 1:37:24 PM

Page 1

Work Order ID: 127548

127548

Parent Item: D3874-1L08

D3874-11 08

Parent Item Name: Floor Protector, Co-Pilot (Clear)

Start Date: 12/12/14

Required Date: 12/17/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. C added color to D3874-1 14/07/02 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.118-90318-08		Purchased	No			100	sf	1,986.000	4.38	5			DAS 07 9-89
MI FXS 118-90318-08													
Lexan Sheet													

Location

Loc Qty

Loc Code

therm

1986

m126994

1986

15/01/07

5.58 ft

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
--	--	---	--

DART AEROSPACE LTD		Work Order: 127548
Description: Floor Protector		Part Number: D3874-1
Inspection Dwg: D3874	Rev: KB ok	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u> "				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

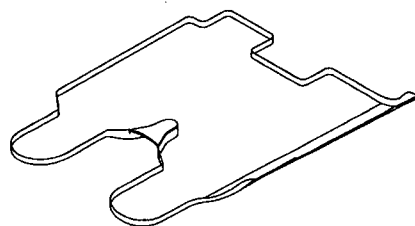
Measured by: <u>DAS</u> 07	Date: 15/01/06
--------------------------------------	-----------------------

TRIMMING SECTION

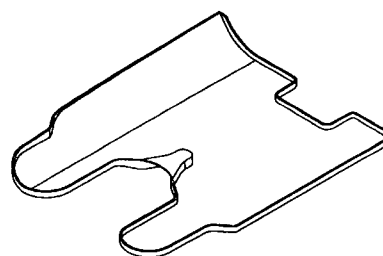
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.050	Min	.086			DL-02	
0.065	Min	.087			HT-DI	
0.5	Min	.537			DL 02	

Measured by: <u>KB</u>	Date: 15/01/02
Audited by: <u>DAS</u> 38	Date: JAN 08 2015
Prototype Approval: <u>N/A</u>	Date: N/A

Rev	Date	Change	Revised by	Approved
A	09.09.15	New Issue	KJ	<u>AA</u>



D3874-1LXX FLOOR PROTECTOR



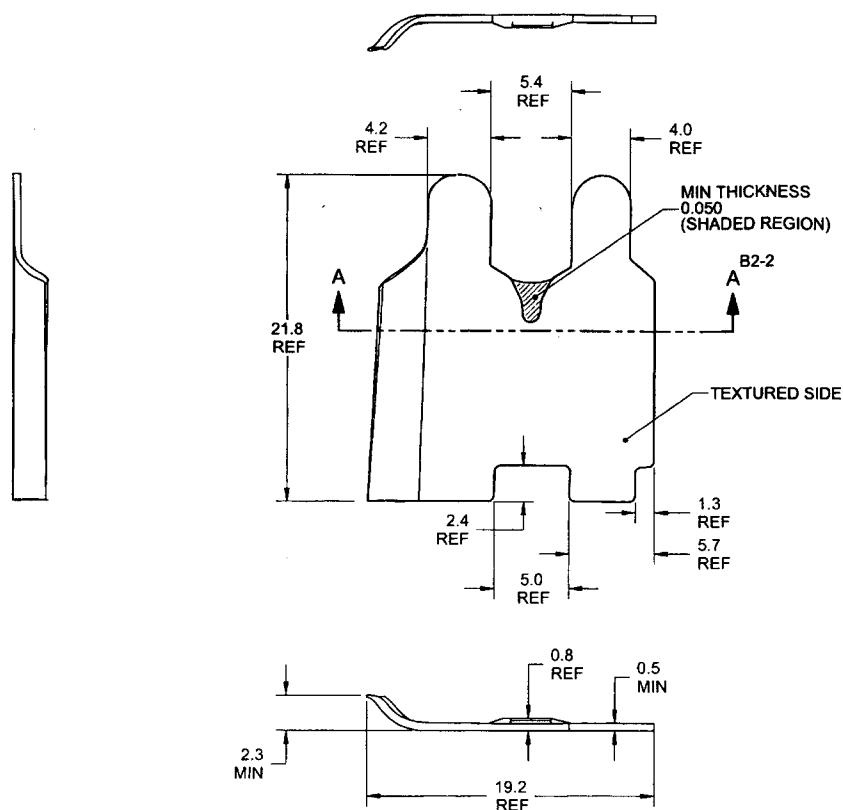
D3874-2LXX FLOOR PROTECTOR

RETURN TO
 CONTROLLED COPY
 COLLECTION ELEMENT
 WORK ORDER
 127548. MLJ
 14-12-22

RELEASED
 2014-06-17
 WH

B	ADDED D3874-1L02 AND D3874-2L02 CONFIGURATIONS AND RE-IDENTIFIED D3874-1 AND D3874-2 AS D3874-1L08 AND D3874-2L08. REVISED NOTE 1 AND ADDED MATERIAL TABLE.		AK	14.04.10
A	NEW ISSUE		PH	09.01.29
REV.	DESCRIPTION		BY	DATE
DESIGN	AK	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3874 TITLE FLOOR PROTECTOR REV. B SHEET 1 OF 3 SCALE NTS		
DRAWN	AK			
CHECKED	RF			
MFG. APPR.	DL			
APPROVED	HS			
DE APPR.	DS	DATE 14.04.10 COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

APPROVED



SECTION A-A
SCALE 2X

D3874-1LXX FLOOR PROTECTOR

RELEASED
2014-06-17

NOTES:

- 1) MATERIAL: SEE TABLE **B**
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3874-1LXX" USING VIBRATING STYLUS
- 7) WEIGHT: 1.5 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9474 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" ON FLANGES AND 0.065" ELSEWHERE EXCEPT AS SHOWN

B

PART NUMBER	DESCRIPTION
D3874-1L02	F6006 SUEDE/POLISHED 701 BLACK LEXAN SHEET 0.125 THICK (REF DART SPEC MLEX.125-F6006-02)
D3874-1L08	90318 PROTECT-A-GLAZE 112 CLEAR LEXAN SHEET 0.118 THICK (REF DART SPEC MLEX.118-90318-08)

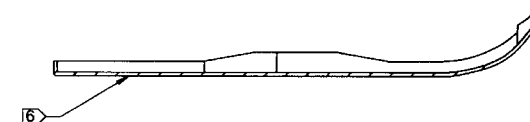
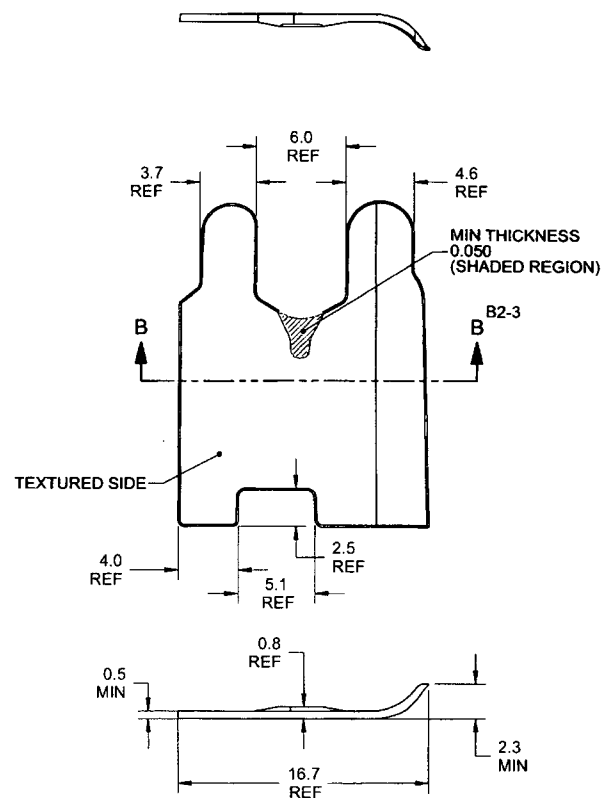
APPROVED

DESIGN	AK
DRAWN	AK
CHECKED	RF
MFG. APPR.	DL
APPROVED	HS
DE APPR.	DS
DATE	14.04.10

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3874** REV. B
SHEET 2 OF 3
TITLE **FLOOR PROTECTOR** SCALE NTS

COPYRIGHT © 2008 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR COMMUNICATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



SECTION B-B
SCALE 2X

D3874-2LXX FLOOR PROTECTOR

RELEASED
2014-06-17

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3874-2LXX" USING VIBRATING STYLUS
- 7) WEIGHT: 1.5 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9474 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" ON FLANGES AND 0.055" ELSEWHERE EXCEPT AS SHOWN

B

PART NUMBER	DESCRIPTION
D3874-2L02	F6006 SUEDE/POLISHED 701 BLACK LEXAN SHEET 0.125 THICK (REF DART SPEC MLEX.125-F6006-02)
D3874-2L08	90318 PROTECT-A-GLAZE 112 CLEAR LEXAN SHEET 0.118 THICK (REF DART SPEC MLEX.118-90318-08)

APPROVED

DESIGN	AK	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
DRAWN	AK		
CHECKED	RF	DRAWING NO.	SHEET 3 OF 3
MFG. APPR.	DL	D3874	SCALE
APPROVED	HS	TITLE	NTS
DE APPR.	DS	FLOOR PROTECTOR	
DATE	14.04.10	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	